injected with $NR1_{100}$ cRNA. NMDA (300 μM) and the indicated concentration of steroid were applied simultaneously. The peak NMDA-induced current is expressed relative to the average of control NMDA responses determined before application of steroid and after steroid washout. *Points* indicate mean of 6 (PS), 3 (3β5βS), and 3 (3α5βS) experiments. *Error bars* indicate S.E.M. Smooth curves are derived from fits to the Michaelis-Menten equation, as fits to the logistic equation yielded Hill coefficients close to 1, with no significant improvement in sum of squares (F-test, $P > 0.05$). Fitted parameters are (for PS) EC_{50}=26 μM, E_{max}=2.14; (for 3α5βS) EC_{50}=57 μM, E_{max}=0.02; (for 3β5βS) EC_{50}=144 μM, E_{max}=0.17.

In the claims:

Claims 30 and 31 have been cancelled.

Claims 1 and 2 have been amended as follows:

1. (Amended) A method for identifying a subunit specific modulator of the N-methyl-D-aspartate (NMDA) receptor, comprising:

a) providing a plurality of recombinant NMDA receptors which differ in their subunit identity;

b) contacting the NMDA receptors of step a) with a neurotransmitter recognition site ligand in the presence and absence of a candidate modulator, wherein the candidate modulator is a steroid-based molecule; and

c) assaying for receptor activity following step b), wherein an increase or decrease in activity in at least one, but not all members of the plurality of NMDA receptors, in the presence but not the absence of a candidate modulator, is an indication that the candidate modulator is a subunit specific modulator.

2. (Amended) The method of Claim 1 further comprising comparing the subunit identity of the at least one NMDA receptor whose activity is increased or decreased to the members of the plurality of NMDA receptors whose activity is not increased or decreased [subset of the NMDA receptors] to determine the subunit specificity of the candidate modulator.

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